



Analytical Laboratory

13339 Hagers Ferry Road
Huntersville, NC 28078-7929
McGuire Nuclear Complex - MG03A2
Phone: 980-875-5245 Fax: 980-875-4349

Order Summary Report

Order Number: J12120030

Project Name: NPDES - QUARTERLY

Customer Name(s): Craig Mercer, Mark J Harper, Todd Spade, Tara Thomas, Matthew Hoyt

Customer Address: 11021 BROWER RD.

NORTH BEND, OH 45052

Lab Contact: Theron T James Phone: 980-875-4795

Report Authorized By: _____ **Date:** 12/17/2012
(Signature)

Program Comments:

Miami-Fort December NPDES - Quarterly Week 1

Data Flags & Calculations:

Any analytical tests or individual analytes within a test flagged with a Qualifier indicate a deviation from the method quality system or quality control requirement. The qualifier description is found at the end of the Certificate of Analysis (sample results) under the qualifiers heading. All results are reported on a dry weight basis unless otherwise noted. Subcontracted data included on the Duke Certificate of Analysis is to be used as information only. Certified vendor results can be found in the subcontracted lab final report. Duke Energy Analytical Laboratory subcontracts analyses to other vendor laboratories that have been qualified by Duke Energy to perform these analyses except where noted.

Data Package:

This data package includes analytical results that are applicable only to the samples described in this narrative. An estimation of the uncertainty of measurement for the results in the report is available upon request. This report shall not be reproduced, except in full, without the written consent of the Analytical Laboratory. Please contact the Analytical laboratory with any questions. The order of individual sections within this report is as follows:

Job Summary Report, Sample Identification, Technical Validation of Data Package, Analytical Laboratory Certificate of Analysis, Analytical Laboratory QC Reports, Sub-contracted Laboratory Results, Customer Specific Data Sheets, Reports & Documentation, Customer Database Entries, Test Case Narratives, Chain of Custody (COC)

Certification:

The Analytical Laboratory holds the following State Certifications : North Carolina (DENR) Certificate #248, South Carolina (DHEC) Laboratory ID # 99005. Contact the Analytical Laboratory for definitive information about the certification status of specific methods.

The results in this report meet NELAP requirements through New York State Department of Health Certification # 11717.. Certified parameters are designated with an "N" in the analytical report.

Sample ID's & Descriptions:

Sample ID	Plant/Station	Collection Date and Time	Collected By	Sample Description
2012025679	MIAMI-FORT	04-Dec-12 8:25 AM	Mark Harper	OUTFALL 002
2012025680	MIAMI-FORT	04-Dec-12 9:05 AM	Mark Harper	OUTFALL 608
2 Total Samples				

Technical Validation Review

Checklist:

COC and .pdf report are in agreement with sample totals and analyses (compliance programs and procedures).

☒ Yes

☐ No

All Results are less than the laboratory reporting limits.

☐ Yes

☒ No

All laboratory QA/QC requirements are acceptable.

☒ Yes

☐ No

Report Sections Included:

☒ Job Summary Report

☒ Sample Identification

☒ Technical Validation of Data Package

☒ Analytical Laboratory Certificate of Analysis

☐ Analytical Laboratory QC Report

☐ Sub-contracted Laboratory Results

☐ Customer Specific Data Sheets, Reports, & Documentation

☐ Customer Database Entries

☒ Chain of Custody

☐ Electronic Data Deliverable (EDD) Sent Separately

Reviewed By: Theron T James

Date: 12/17/2012

Certificate of Laboratory Analysis*This report shall not be reproduced, except in full.***Order # J12120030**

Site: OUTFALL 002

Collection Date: 04-Dec-12 8:25 AM

Sample #: 2012025679

Matrix: NPDES

Analyte	Result	Units	Qualifiers	RDL	DF	Method	Analysis Date/Time	Analyst
<u>AMMONIA (COLORIMETRIC)</u>								
Ammonia (Colorimetric)	0.262	mg-N/L	N	0.02	1	EPA 350.1	12/11/2012 11:40	BGN9034
<u>TOTAL KJELDAHL NITROGEN (COLORIMETRIC)</u>								
Total Kjeldahl Nitrogen (Colorimetric)	0.97	mg-N/L	N	0.15	1	EPA 351.2	12/06/2012 11:32	BGN9034
<u>TOTAL DISSOLVED SOLIDS</u>								
TDS	730	mg/L	N	20	1	SM2540C	12/10/2012 16:47	SWILLI3

Site: OUTFALL 608

Collection Date: 04-Dec-12 9:05 AM

Sample #: 2012025680

Matrix: NPDES

Analyte	Result	Units	Qualifiers	RDL	DF	Method	Analysis Date/Time	Analyst
<u>ALKALINITY (FIXED END POINT 4.5)</u>								
Alkalinity (mg/L CaCO3)	1700	mg/L (CaCO3)	N	0.1	1	SM2320B	12/06/2012 09:24	TJA7067
<u>INORGANIC IONS BY IC</u>								
Chloride	6800	mg/L	N	100	1000	EPA 300.0	12/07/2012 19:38	JAHERMA
Fluoride	13	mg/L	N	5	50	EPA 300.0	12/07/2012 19:38	JAHERMA
Sulfate	3700	mg/L	N	100	1000	EPA 300.0	12/07/2012 19:38	JAHERMA
<u>TOTAL METALS BY ICP</u>								
Boron (B)	498	mg/L	M4; N	0.5	10	EPA 200.7	12/07/2012 12:28	DJSULL1
Iron (Fe)	0.014	mg/L	N	0.01	1	EPA 200.7	12/07/2012 12:28	DJSULL1
Manganese (Mn)	0.166	mg/L	N	0.005	1	EPA 200.7	12/07/2012 12:28	DJSULL1
<u>TOTAL RECOVERABLE METALS BY ICP-MS</u>								
Arsenic (As)	< 20	ug/L	N	20	1	EPA 200.8	12/07/2012 11:19	KRICAR
Barium (Ba)	187	ug/L	N	20	1	EPA 200.8	12/07/2012 11:19	KRICAR
Cadmium (Cd)	< 20	ug/L	N	20	1	EPA 200.8	12/07/2012 11:19	KRICAR
Chromium (Cr)	< 20	ug/L	N	20	1	EPA 200.8	12/07/2012 11:19	KRICAR
Copper (Cu)	< 20	ug/L	N	20	1	EPA 200.8	12/07/2012 11:19	KRICAR
Lead (Pb)	< 20	ug/L	N	20	1	EPA 200.8	12/07/2012 11:19	KRICAR
Zinc (Zn)	< 20	ug/L	N	20	1	EPA 200.8	12/07/2012 11:19	KRICAR
<u>TOTAL DISSOLVED SOLIDS</u>								
TDS	20000	mg/L	N	100	1	SM2540C	12/10/2012 16:47	SWILLI3
<u>TOTAL SUSPENDED SOLIDS</u>								
TSS	9.0	mg/L	N	5	1	SM2540D	12/07/2012 11:15	TJA7067

Certificate of Laboratory Analysis

This report shall not be reproduced, except in full.

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Qualifiers:

- M4** The spike recovery value was unusable since the analyte concentration in the sample was disproportionate to the spike level. The associated Laboratory Control Spike recovery was acceptable.

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST FORM

Analytical Laboratory
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Duke Energy
SM
Duke Energy Analytical Laboratory
Mail Code MGO3A2 (Building 7405) 13339
Hagers Ferry Rd
Huntersville, N. C. 28078
(704) 875-5245 4349 Fax: (704) 875-

Analytical Laboratory Use Only
LIMS # J12120030
Sample Class **NPDES**
OH X
Logged By R.L. Date & Time 12/5/12 1330
Vendor 2.8
Cooler Temp (C) 2.8
SAMPLE PROGRAM **NPDES_X**

¹⁹Page 1 of 1
DISTRIBUTION
ORIGINAL to LAB,
COPY to CLIENT

1) Project Name **MIAMI-FORT NPDES Quarterly (Week 1 - December 4, 2012)**
2) Phone No:
3) Client **Sue Wallace, Tara Thomas, Matthew Hoyt**
4) Fax No:
5) Business Unit:
6) Process:
7) Resp. Center To:
8) Project ID:
9) Activity ID:
10) Mail Code:

PO #
MR #
Customer to complete all appropriate non-shaded areas.
¹⁵Preserv.: 1=HCL 2=H₂SO₄ 3=HNO₃ 4=Ice 5=None
¹⁶Analyses Required
TDS TKN, NH3 B, Fe, Mn, As, Ba, Cd, Cr, Cu, Pb, Zn TSS Cl, F, SO4 Alkalinity

17 Comp.	18 Grab	TDS	TKN, NH3	B, Fe, Mn, As, Ba, Cd, Cr, Cu, Pb, Zn	TSS	Cl, F, SO4	Alkalinity
	X	1	1				
	X	1		1	1	1	1

LAB USE ONLY
¹¹Lab ID
2012025679
2012025680

¹²Chem Desktop No.
¹³Sample Description or ID
Date Time Signature
Outfall 002 12-4-12 0825 Mark Hayer
Outfall 608 12-4-12 0905 Mark Hayer

Customer to sign & date below - fill out from left to right.
1) Relinquished By Mark Hayer Date/Time 12-4-12 0930
3) Relinquished By COURIER Date/Time 12/4/12 1320
5) Relinquished By
7) Relinquished By
9) Seal/Locked By Mark Hayer Date/Time 12-4-12 0930
11) Seal/Locked By

2) Accepted By COURIER Date/Time 12/4/12
4) Accepted By R.L. Davis Date/Time 12/5/12 1320
6) Accepted By
8) Accepted By
10) Seal/Lock Opened By R.L. Davis Date/Time 12/5/12 1320
12) Seal/Lock Opened By

Customer, IMPORTANT!
Please indicate desired turnaround.
²²Requested Turnaround
14 Days _____
*7 Days _____
*48 Hr _____
*Other _____
*Add. Cost Will Apply

Comments: **ICP-TOT - B, Fe, MN IMS-TRM - As, Ba, Cd, Cr, Cu, Pb, Zn TSS and TDS are 2 liter containers Fe HACH = 0.06mg/L**